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*Special Article*

# The Makings of Policy for Medicine and Health

## *A Report on the Institute of Medicine*

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THE INSTITUTE OF MEDICINE is completing its third year of operation and has moved well beyond the stage of organizing itself and its pursuits. Fourteen different activities have been undertaken since the assembly of a core staff in the spring of 1972. As I prepare to leave the Institute, an invitation from THE WESTERN JOURNAL OF MEDICINE to describe the program and prospects that have been forged is a welcome opportunity to explain why there *is* an Institute of Medicine.

The Institute was chartered in 1970 by the National Academy of Sciences to enlist distinguished members of medical and other professions in activities that will lead "to the advancement of the health sciences and education and to the improvement of health care," as the preamble to our founding document states. Managed neither by government nor the health professions, the Institute is able to bring the talents of a diversely expert membership to bear on health policy projects in the public interest. From these projects come recommendations and alternatives that can be translated into a form usable by those who must make the decisions.

Membership in the Institute is both an honor and a working assignment. Once appointed, members are committed to devote a significant portion of their time to work on Institute panels and committees engaged in a broad range of health policy studies. There are 209 active and five senior members at present. The Institute's charter calls for an eventual active membership limited to 400.

New members are elected annually by current active members from among candidates chosen for their significant contributions to health and medicine, or to such related fields as the social and behavioral sciences, law, administration, and engineering. At least one-fourth of the members must be drawn from professions other than health and medicine, thereby assuring a variety of viewpoints in their deliberations.

The average age of current active members is 51; 61 percent of them hold MD degrees. Members serve for a term of five years and can be reelected for a second term.

### The Institute's Function

The Institute's task is to identify, study, and analyze the important issues of health and medicine in order to contribute to the quality of national discussions of them. In the best application of its talents, the Institute tackles issues or problems that affect more than one health profession or segment of the health care enterprise. More often than we usually realize, matters of health professional education, provision of health services, and conduct of biomedical research are closely related to each other.

The functions and potential of the Institute can best be described, I believe, by looking at one segment of its program—in this instance the activities

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on health professional education and manpower policies. I select this segment partly because several significant events have recently occurred in it, but also because no segment is more fundamental to the operation of the entire health system. While focusing on the manpower portion, I should point out that a major share of the Institute's activities has to do with the quality, organization and financing of medical and health care. There are other projects dealing with policy on the support and conduct of biomedical research, the prevention of disease and factors affecting health status, and the ethical and legal aspects of health care.

### Interdisciplinary Education

The Institute's venture into the field of health professional education began in 1971 with the development of plans for a national invitational conference to explore the problems and possibilities of educating health science students to function as members of an integrated health care "team." While several professional groups had previously met to discuss this matter among themselves, there had not been an opportunity for members of all the major health professions to convene for a consideration of interdisciplinary education. The Institute could provide that meeting ground.

A conference steering committee, with Edmund D. Pellegrino, MD, then vice-president for the Health Sciences at the State University of New York at Stony Brook as its chairman, issued invitations to leaders in medicine, dentistry, nursing, pharmacy, and the fields of allied health. More than 120 people—fairly equally divided among the specialties—attended the conference, which was held October 2 and 3, 1972. The business was conducted in small discussion groups. Among the questions considered: Why do we need to educate teams for the delivery of health care? Who should be educated to serve on the teams? How should education be structured so as to facilitate teamwork? What are the obstacles to interdisciplinary education? Definitive answers were not expected, and were not essayed by the conference. But it did succeed in eliciting a much needed interprofessional dialogue on education.

The 11-member steering committee, after studying the conference proceedings, concluded that "ambulatory care, oriented either toward individuals seeking health care or toward specific population groups, is the most appropriate area in which to begin to develop health care team models." There was unanimous agreement that all health professionals need a better understanding of how their respective functions interrelate with those of others.

### Cost of Education

The Institute's most ambitious undertaking to date has been a $2.3 million study of the costs of education in eight different health professions. The study was contracted to the Institute by the Department of Health, Education, and Welfare under provisions of the 1971 Comprehensive Health Manpower Act. Research was begun in July, 1972; a final report is due in January 1974. The study developed methods for estimating the per capita costs of education in schools of medicine, dentistry, osteopathy, optometry, pharmacy, veterinary medicine, podiatry, and nursing, and will provide data on the costs of instruction and education. In addition, the study analyzes the reasons for variation in costs and will make recommendations as to how the cost data can be used to set capitation rates.

The study has been performed by staff members of the Institute of Medicine assisted by a group of consultants. The entire project has been supervised by a steering committee composed of leading specialists in academic and administrative medicine, economics, nursing, health care financing, and medical science. Julius Richmond, MD, Harvard faculty member and director of the Judge Baker Guidance Center in Boston, is chairman of the ten-member Institute committee.

Three different cost-finding approaches have been used:

- Program cost, which seeks at the outset to identify all resources actually used by a school in its operation, and to allocate an appropriate share of these resources to each of its programs independent of the source of funds or the actual cash outlays.
- Net expenditures, which define education as the gross cash expenditures for educational programs, less an allocated amount of revenue earned from patient care and sponsored research. This method attempts to show the relationship of educational expenditures to source of support.
- The constructed cost, which is an attempt to make a model of appropriate resources for medical and other health science schools based on the best judgments of a group of experts in the fields.

Eighty-five schools were visited to obtain data used in the program cost and net educational ex-

penditure approaches. For the constructed cost approach, two groups of academicians and administrators were assembled to deliberate on the construction of hypothetical medical and dental schools. Two seminars were held for this purpose, one in July and the other in September, 1973. A third seminar was held in November to prepare a model of veterinary education. In each seminar two separate workshops developed curricula and teaching modes in the basic and clinical sicences, and then translated those requirements into numbers of faculty needed, taking into account the diverse activities required both to create a suitable educational environment and to assure the continued competence of the faculty.

It was felt at the outset that the range of educational programs and costs in existing health science schools could be partly a result of historical accident, based on the availability of funds. The constructed cost effort was designed to balance the situation. Preliminary results of the workshop sessions indicated that the faculty sizes and divisions of labor specified by the participants were not too different from the situation that exists in schools of "the real world."

Throughout the cost study, the staff and members of the steering committee have had to address very basic questions. What functions and activities beyond instruction are necessary to provide the environment in which a qualified professional is produced? How much research and patient care are needed? Such considerations obviously have a bearing on policy regarding the financing of medical and other health-related education.

## Manpower Functions

One of the bigger health matters in United States public policy has to do with the number and type of manpower needed best to deliver medical care. Concern in the 1960s about a possible physician shortage led to the establishment of programs for the training of entirely new categories of health professionals. Medical specialties spawned a variety of physician assistants to handle the routine duties of care. With each new profession has come a new set of professional standards and prerogatives to be protected. It is not at all clear whether the initiatives taken in manpower production are complementary parts of a whole, or conflicting efforts unrelated to one another.

The Institute is planning a study that would approach the matter of manpower requirements for primary care from the point of view of the product. While there are policy issues concerning manpower in the entire health system, primary care is the segment that has experienced the greatest amount of change in structure. The objective of the study would be to define job functions in primary care, rationalize the division of labor among various categories of health workers, and provide concepts of manpower utilization that can be used to eliminate national requirements of various kinds of health workers, both in quantity and geographic distribution.

A planning group of Institute members and other experts is developing a specific study protocol and methodology. The proposal drawn up by this 11-member panel will be presented to the Institute's Program Committee for evaluation.

## Other Highlights

As I mentioned earlier, the Institute program during the past year and a half has included a number of other activities concerned with science policy, health care, and the ethical and legal aspects of medicine. Three of them will illustrate several ways in which the Institute responds to opportunities for detailed consideration of policy matters.

The director of the National Cancer Institute, Frank J. Rauscher, Jr., PH D, asked the National Academy of Sciences in August of 1972 to conduct a review of the five-year plan mandated by the Congress for a "targeted" program of research against cancer. Dr. Philip Handler, the Academy's president, in turn requested the Institute to perform the review. A ten-member review panel was formed with Lewis Thomas, MD, then Dean of Yale University School of Medicine, as chairman. The panel's work was confined to the first two of the plan's three volumes, the third not then being available. The review included an evaluation of the way in which scientific priorities had been determined and the proposed techniques for managing the program.

The panel, in its 26-page report, commended "the comprehensiveness and thoroughness" that went into the construction of the cancer plan. But it disagreed with, or certainly questioned, the apparent assumption "that all shots can be called from a central headquarters; that all, or nearly all, of the really important ideas are already in hand; and, that given the right kind of administration and organization, the hard problems can be solved." The panel advised that attention be paid to the development of means for recognizing the

basic science projects essential to the ultimate success of the cancer program. The report was presented to the National Cancer Institute on December 20, 1972.

In the summer of 1972, the Institute sought and received a contract from the Health Services and Mental Health Administration to underwrite a program dealing with the ethical problems encountered in health care decision-making. F. C. Redlich, MD, now professor of psychiatry at Yale University, was appointed chairman of a committee that was to explore various areas of health and medical care and indicate the issues in need of additional study. The committee, which met for the first time in November 1972, drew up six categories of inquiry and invited scholars across the country to prepare papers analyzing topics within these categories. The papers were presented at a conference on Health Care and Changing Values held under Institute auspices November 27-29, 1973. The aim of the conference and other aspects of the committee's work has been to put some order into consideration of the newer ethical issues arising from medicine's scientific and technological advance.

At a general meeting of the Institute in the spring of 1972, the members were asked for suggestions on matters that might be included in the Institute's program. More than 90 ideas came in. One called for an evaluation of recently-legislated Professional Standards Review Organizations (PSRO). The Program Committee accepted the study proposal and referred the matter to the Institute Council. The activity was approved with the proviso that the entire question of quality standards be examined. A panel under the chairmanship of Robert J. Haggerty, MD, of the University of Rochester, has been active since December 1972 in assessing various means of measuring and monitoring quality. Its policy statement, for release early in 1974, will establish generic principles for any system of assuring quality and consider the implications of those principles for the establishment of PSROs.

The Institute of Medicine was created in response to the need for an impartial and broadly representative body that can speak with authority to the issues affecting national health policy. In the three years following its activation, a solid foundation for its analytical evaluations has been laid. With the continued enthusiasm of its members and dedication of its varied staff, the Institute can become a truly significant force for constructive change in our nation's health system.